

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims.

**LISTING OF CLAIMS:**

Claims 1-39. Cancelled.

Claim 40. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment, which recognizes a 150 kDA *T. equigenitalis* protein.

Claim 41. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with at least one antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognize *T. equigenitalis* antigens selected from the group consisting of *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 42. (Previously Presented) An isolated monoclonal antibody obtained by a process comprising:

fusing non-secreting murine myeloma cells with spleen cells  
from mice immunized against an inactivated strain of the  
species *T. equigenitalis* or extract(s) of such a strain,  
cloning and selecting according to the capacity of their culture  
supernatant to recognize a 150 kDA *T. equigenitalis*  
protein,  
recovering the required monoclonal antibody, and  
optionally purifying said monoclonal antibody.

Claim 43. (Previously Presented) A method of obtaining a monoclonal antibody according to claim 40, comprising:

fusing non-secreting murine myeloma cells with spleen cells  
from mice immunized by means of a strain of the species  
*T. equigenitalis* or extract(s) from such a strain,  
screening hybridomas whose culture supernatants exhibit a  
positive reaction with a 150 kDA *T. equigenitalis* protein,  
selecting by cloning the hybridomas with respect to their  
reactivity, in relation to *T. equigenitalis*,  
recovering the monoclonal antibody, and  
optionally purifying said monoclonal antibody.

Claim 44. (Previously Presented) A strain of hybridoma, which secretes the monoclonal antibody according to claim 40.

Claim 45. (Currently Amended) A method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis* antigen, into contact with an effective quantity of a monoclonal antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof according to claim 40, under conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 46. (Currently Amended) A method of diagnosis of an infection by ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof according to claim 40, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting any antigen/antibody type reaction product formed in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 47. (Previously Presented) The method according to claim 45, further comprising blocking the non antigen-antibody reactions.

- Claim 48. (Currently Amended) A kit for application of a method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:
- a monoclonal antibody or fragment according to claim 40,
  - a reagent for detecting the intended immunologic reaction,
  - optionally, a reagent for blocking the non antigen-antibody reactions, and
  - instructions for use.
- Claim 49. Cancelled.
- Claim 50. (Previously Presented) A kit according to claim 48, wherein said reagent for detecting the intended immunologic reaction is selected from the group consisting of markers and buffers.
- Claim 51. (Previously Presented) A kit according to claim 48, wherein a reagent for blocking the non antigenic-antibody reaction is included and said reagent is mouse serum.
- Claim 52. (Currently Amended) The method according to claim 47, wherein ~~wherein~~ the blocking comprises saturating the specimen with serum from which anti-*T. equigenitalis* antibodies have been removed.

- Claim 53. (Previously Presented) The method according to claim 46, further comprising blocking the non antigen-antibody reactions.
- Claim 54. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA.
- Claim 55. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 120 kDA *T. equigenitalis* protein.
- Claim 56. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.
- Claim 57. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* antigen.

- Claim 58. (Currently Amended) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with at least one antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a *T. equigenitalis* ~~antigens~~ antigen selected from the group consisting of *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA.
- Claim 59. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA.
- Claim 60. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 120 kDA *T. equigenitalis* protein.
- Claim 61. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

- Claim 62. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* antigen.
- Claim 63. (Previously Presented) A strain of hybridoma, which secretes the monoclonal antibody according to claim 42.



Claim 64. (Currently Amended) A method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and at least one antibody or Fv, Fab, or F(ab')<sup>2</sup> fragment thereof which recognizes recognize *T. equigenitalis* antigen selected from the group consisting of *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 41, under conditions permitting a reaction of the antigen-antibody type, and detecting any antigen/antibody type reaction product formed, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 65. (Currently Amended) A method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis* antigen, into contact with an effective quantity of the monoclonal antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof according to claim 42, under conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 66. (Currently Amended) A method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 54, under conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 67. (Currently Amended) A method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and at least one antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 58, under conditions permitting a reaction of the antigen-antibody type, and  
detecting any antigen/antibody type reaction product formed, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 68. (Currently Amended) A method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDa ~~kDa~~ *T. equigenitalis* protein and antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* antigens of 120 kDa, 52.7 kDa and 22 (LPS) kDa according to claim 59, under conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 69. (Currently Amended) A method of diagnosis of an infection by

~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) comprising:

- (a) bringing the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and at least one antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognize *T. equigenitalis* antigens selected from the group consisting of *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 41, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting any antigen/antibody type reaction product formed in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 70. (Currently Amended) A method of diagnosis of an infection by

~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) comprising:

- (a) bringing the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* antigens selected from the group consisting of *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA thereof according to claim 42, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting any antigen/antibody type reaction product formed in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 71. (Currently Amended) A method of diagnosis of an infection by ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) comprising:

- (a) bringing the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* antigens selected from the group consisting of *T. equigenitalis* ~~proteins~~ antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 54, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting any antigen/antibody type reaction product formed in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.



Claim 72. (Currently Amended) A method of diagnosis of an infection by ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) comprising:

- (a) bringing the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and at least one antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognize *T. equigenitalis* antigens selected from the group consisting of *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 58, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting any antigen/antibody type reaction product formed in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 73. (Currently Amended) A method of diagnosis of an infection by

~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) comprising:

- (a) bringing the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 59, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting any antigen/antibody type reaction product formed in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 74. (Currently Amended) A kit for application of a method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and at least one antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognize *T. equigenitalis* antigens selected from the ~~groups~~ group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 41, reagents for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and instructions for use.

Claim 75. (Currently Amended) A kit for application of a method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

a monoclonal antibody or fragment according to claim 42, reagents for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and instructions for use.

Claim 76. (Currently Amended) A kit for application of a method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* antigens selected from the group consisting of *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 54,

reagents for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and

instructions for use.

Claim 77. (Currently Amended) A kit for application of a method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and at least one antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognize *T. equigenitalis* antigens selected from the group consisting of *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 58,

reagents for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and instructions for use.

Claim 78. (Currently Amended) A kit for application of a method of identification of a bacterium of the species ~~*Taylorella equigenitalis*~~ (*T. equigenitalis*) in a specimen or in a culture comprising:

the combination of an isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment which recognizes a 150 kDA *T. equigenitalis* protein and antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* antigens selected from the group consisting of *T. equigenitalis* antigens of 120 kDA, 52.7 kDA and 22 (LPS) kDA according to claim 59,

reagents for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and

instructions for use.

Claims 79-83 Cancelled.